

Application No. 10/585629
Responsive to the office action dated August 26, 2009

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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A method for deuteration of a compound having an aromatic ring, comprising reacting the compound having an optionally substituted aromatic ring with a heavy hydrogen source in the presence of an activated mixed catalyst of not less than comprising at least two kinds of catalysts selected from among the group consisting of a palladium catalyst, a platinum catalyst, a rhodium catalyst, an iridium catalyst, a ruthenium catalyst, a nickel catalyst, and a cobalt catalyst.

2. (Original) The method for deuteration according to claim 1, wherein the heavy hydrogen source is a deuterated solvent.

3. (Original) The method for deuteration according to claim 2, wherein the deuterated solvent is heavy water (D₂O).

4. (Currently amended) The method for deuteration according to claim 1, wherein the activated mixed catalyst is a catalyst obtained by activating a mixed catalyst of not less than comprising at least two kinds of catalysts selected from among the group of non-activated catalysts consisting of a non-activated palladium catalyst, a platinum catalyst, a rhodium catalyst, an iridium catalyst, a ruthenium catalyst, a nickel catalyst, and a cobalt catalyst by contacting the non-activated catalysts with hydrogen gas or heavy hydrogen gas.

5. (Original) The method for deuteration according to claim 4, wherein the contact of the non-activated mixed catalyst with hydrogen gas or heavy hydrogen gas is carried out in a reaction system of the deuteration.

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6. (Original) The method for deuteration according to claim 1, wherein the activated mixed catalyst is an activated mixed catalyst of a palladium catalyst and a platinum catalyst.
7. (Original) The method for deuteration according to claim 6, wherein the palladium catalyst is palladium carbon.
8. (Original) The method for deuteration according to claim 6, wherein the platinum catalyst is platinum carbon.
9. (Original) The method for deuteration according to claim 6, wherein the activated mixed catalyst of a palladium catalyst and a platinum catalyst has a weight ratio of each metal in the palladium catalyst and the platinum catalyst of 1:99 to 99: 1.
10. (Currently amended) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has ~~an~~ at least one optionally substituted alkyl group ~~alkylene chain~~ bonded to the aromatic ring.
11. (Currently amended) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has an alkylamino group bonded to the aromatic ring.
12. (Currently amended) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has a carboxyl group bonded to the aromatic ring.
13. (New) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has at least one optionally substituted alkenyl group bonded to the aromatic ring.